

# Project proposal: Snake for two players

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## Overview:

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The goal of our project is to design and implement "Snake", alongside with some modifications listed below

- ☒ Support for two players on a single machine
- ☒ AI controlled snakes will be spawned randomly
- ☒ "Magic" items will be spawned in addition to traditional points
- ☒ Allow game configurations
- ☒ Show statistics for both players, e.g., length of snake, number of items

## Technology Stack:

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- GUI: Swing

## Implementation:

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- Before game starts, the two players will first configure their key bindings
- The players are able to control the "snakes", and a thread will be created for each of the "snake"
- Items and AI controlled "snakes" will be spawned on the game board periodically
- One will lose the game if the "snake" hits another "snake" or the border of the game board
- The place where an AI "snake" spawns will be shown in advance
- The "AI snake" will become collectable points after its death
- "Magic" items will have various functionalities, including but not limited to increase the

length of the snake

- The frequency of spawning "AI snakes" and items will increase as the time passes
- A player will win if the length of the player's snake reaches a certain pre-set number, or the other player's snake dies